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ABSTRACT

This collection of papers investigates various aspects of the library as a Learning Resource Center. The first paper focuses on targets for innovation and points to the administrators of Learning Resource Centers as agents for constructive change in their junior colleges. The second paper shows that the library takes on a dynamic teaching function as new instructional materials are incorporated into the traditional library collection; the instructor, librarian, and audiovisualist share the functions of resource directors and teachers. The third article has implications for stimulating faculty to use the facilities of the college's Learning Resource Center. They include encouraging faculty to try new approaches to teaching and to visit other colleges that are doing new and different things. Stumbling blocks and budget considerations are also briefly discussed. The fourth article stresses the need for information to be actively moved by, rather than passively stored in, a Learning Resource Center. The final article deals with the new trend toward self-instruction and the learning facilities developed to service it. The cost, types and use of facilities is discussed with particular attention given to Portable Carrel Kits which consist of carrying case, cassette tape player, and projector. They can be rented and taken home or used in any other study facility. (CA)

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[The Learning Resource Center of the Two-Year College]

S. V. Martorana

Alfredo G. de los Santos, Jr.

Al Corum

Ramon M. and Jan B. Fusaro

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CLEARINGHOUSE FOR
JUNIOR COLLEGE
INFORMATION

JC 710 171

Identifying and Utilizing Change Agents to Improve Community College Instruction

(An Outline for Remarks at the Federal Institute on the Learning Resource Center of the Two-year College)

S. V. Martorana

July 9, 1970
Appalachian State University
Boone, North Carolina

The stage was set for my participation in this Federal Institute on the Learning Resource Center in community-junior colleges and for my contribution to a discussion of the role to be played in these colleges by the heads of learning resource centers when Director Mayrelee Newman wrote me last April and advised me as follows:

> "There are two avenues open for our discussions. One is the political strategy of the educational system. . . . Another is the whole applied area of learning resource support for better learning strategies for all students, a kind of administrative, top level briefing upon the ways in which you would feel that these 45 students could become effective and dynamic change agents on their campuses."

You will notice, I trust, that in the observations I shall make and in the comments I intend to offer I chose not to select between the two courses Mrs. Newman suggested but, rather to treat both of them. This was a deliberate decision because I believe that the two topics are interrelated; the political organization and setting in which a community-junior college operates (noting especially that the term "political" here is used in the theoretical and technical, not partisan sense) very definitely affects agents for change in the institutions and the way that they must function in order to be effective. The principal thrust of my remarks, therefore, will be directed toward helping you to sense and appreciate the institutional politics in the setting in which you will likely be

operating as well as the inter-institutional politics that prevail and influence the way that a community-junior college function in its community and state.

Before embarking on an elaboration of the several points on which I have prepared my observations and comments, I need to stress one other part of Mrs. Newman's letter which I made special not of and which became for me a readily aceptable guideline. She wrote, "I would want you to assume that these students are already 'with it' as far as understanding the philosophy of community college service, that they have developed creative commitment to the cause, and the atmosphere would be one of mature and intense inquiry." To this, my reaction is a loud and grateful shout of glee on behalf of the community colleges of the nation which are starving for this kind of personnel, and so on to my topics which I have organized for discussion as follows:

I--Targets for Change

> The first order of business for a change agent is to ascertain what it is he hopes to change. Most community colleges are sorely in need of changes in their institutional operating practices, practices which reflect wrong and/or outdated concepts of HOW, WHEN, and WHERE students learn.
>
> In effecting change, our actions speak louder than words; the presence of open-minded, well-trained, and informed library and instructional resource center personnel on a community-college staff does not necessarily mean the presence of open-minded, adaptable, and currently trained faculty or other institutional personnel.
>
> So, both concepts about learning must be changed and the attitudes of community-college personnel must be changed.

A. Concepts ---

--- Students learn only between 9:00 A.M. and 3 or 4:00 P.M.
--- Students learn only Monday, Wednesday, and Friday (or at least primarily on those days)
--- Students learn only in classrooms, labs, and shops on the campus (and in the view of many faculty, only in "my" classroom, lab, or shop.)

--- Students learn only (or at least predominantly) by listening to authorities lecture and by reading books written by authorities

You may not like these observations and suggested conclusions concerning our institutional practices, attitudes, educational concepts. They flow, however, from observation of what is actually happening at most community colleges. Remember, actions have the loudest voice, not the words we speak or write.

B. Personnel---

--- In general, there is need for total institutional change regarding the learning process. Global modifications are called for; changes that will allow for and recognize the validity of independent study, auto-tutorial methods and devices for teaching and learning, and which will allow students to learn (and to get credit for learning) in many different places and times---both on- and off-campus.

--- But most of all the FACULTY--the "teaching personnel"

Roger Garrison's classical study for the American Association of Junior Colleges identified the primary target in need of change well, the faculty. His more recent inquires show that progress is proceeding at a "snail's pace."

--- Administrators (presidents, administrative staff, and members of boards of trustees) also should be identified as targets for change, but in my judgment, are more receptive to institutional changes in instructional practices, than are the faculty.

--- Persons who head the institutions who produce our community-college personnel are another vital target in need of change. The university graduate schools typically produce new faculty members who think (and teach) like old faculty members.

With a few exceptions over the nation, the graduate schools are producing personnel improperly selected and poorly prepared for professional performance in comprehensive community colleges dedicated to be "open door" in their admissions and widely flexible in their programs and in their methods of instruction.

--- Generalization applies to counselors, librarians, other educational specialists, as well as faculty.

--- Yet graduate faculties are in control; makers of products in their own image; fulfillers of their own prophecies. The graduate faculties must be made more understanding and appreciative of the true educational mission of the community college.

II - Political Action for Change

A. Step one-- identifying the viable "cooperators in effecting change" These are to be found both <u>external</u> and <u>internal</u> to the college.

--- External forces interested in positive changes:

--- Students (especially in today's climate and setting)
--- Employees of our graduates--business and industry want to help in creating change
--- State-level educational and governmental agencies (more on this later)

In short, the real forces for change are the social, technological, and cultural dynamics in our communities themselves.

--- Internal forces interested in positive changes:

--- Some faculty members (seek these out and join forces with them early).
--- Student personnel services staff (generally speaking)
--- Institutional research personnel (ditto)

These, with a sympathetic and supporting administrative leadership, can get the most inert of faculty to examine and ultimately to accept change.

B. Step two-- planning political/organizational action to <u>effect</u> positive educational changes.

--- Within the institution this means working with the above identified elements within the institution to cause college committees, the college in-service training program for faculty, its orientation program for new faculty, and as many other operational "handles" as possible to be turned to use in effecting change.

--- In all of this the importance of proceeding from the facts of the current situation cannot be overemphasized. Here is where the student personnel and institutional research staff play an invaluable role. It should be used to the fullest.

--- Outside of the community college itself, there are new and powerful forces at play, also, and with an increasing influence

--- This is the day of the "consortium"; colleges no longer operate like islands, each onto itself.

--- This is the day of "statewide coordination", with state-level agencies for community-college education playing an increasingly stronger role.

--- An illustration in New York State is the study of library budget practices in relation to library instructional practices in our six state-controlled two-year colleges. The "change agents" in these institutions were presented an excellent opportunity to join in getting the facts and turning them to use for positive changes in the practices of these colleges.

--- Forces are at play at the national level, also.

--- American Association of Junior Colleges and U.S. Office of Education's Program with Developing Colleges
--- Office of Economic Opportunity's 1970 grants to six states to develop statewide planning models.

III-- Conclusion

Agents for positive and constructive change are needed at all community colleges. Personnel acting as heads of learning resources centers are admirably fitted to play this role. They have allies both within and without the institution. A word to the wise is sufficient.

RATIONALE FOR THE LEARNING RESOURCE PHILOSOPHY

AT THE COMMUNITY COLLEGE

OR

THE EMPHÁSIS IS ON A DIFFERENT SYLLÁBLE

by Alfredo G. de los Santos Jr.*

You see, at the community college, the emphásis is on a different sylláble.

Community college people have a deep-seated conviction of the worth and dignity of each individual for what he is and for what he can become. We have a commitment to the idea that society ought to provide the opportunity for each person to continue appropriate education to the limit of his capabilities and motivations. There are at least three terms that we ought to define as they pertain to community colleges before we go too much further.

Definition of Terms

The first one is "community." In very general terms, this means that the community college seeks to find the continuing needs of the citizenry of the area it serves and to develop programs to meet these needs. While students in the big universities in all parts of the country (Berkeley on the West coast, Columbia on the East and many in between), are demonstrating and rioting to make these big multi-versities become more sensitive to the needs of the immediate community in which they are located, the community colleges are tailoring their programs to meet the specific needs of their community. ("different" programs in community colleges in Texas, Florida, Pennsylvania). Here, the emphásis is on a different sylláble.

*Dean of Instruction, Northampton County Area Community College
3835 Green Pond Road, Bethlehem, Pennsylvania 18017

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Another term that we ought to define is "open door." Whether you define this to mean that any student can enroll in the college but only those who are qualified can enroll in certain curricular programs or whether you define it to mean that any student can take any program or course at the community college, it still means that education for the masses—the democratization of higher education—in the United States is here.

Let's take a look at the students in the community college. Of the 33,000 students in the SCOPE study reported by Tillery, (1:2) the community colleges attracted fifteen per cent (15%) of the students in the top ability quartile compared with sixty eight per cent (68%) from this same quartile who went to four year institutions. Fifty-one per cent (51%) of those students from the top quartile in family occupational level entered a four year institution compared with twenty one per cent (21%) from the top socioeconomic level that went to the community college.

However, it is the total community college population that we are interested in at this point. It was found the background of the students in the SCOPE sample who went to the community colleges is very similar to the background of the total high school population in two very important factors: tested academic ability and socioeconomic background.

In tested academic ability, twenty per cent (20%) of the students who went to the community colleges came from the top quartile, thirty one cent (31%) from the second, thirty two per cent (32%) from the third, and seventeen per cent (17%) from the fourth quartile. Since by definition, a representative sample would have twenty five per cent (25%) in each category, it can be readily seen that the community colleges have a

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majority of the students in the second and third quartiles, but that rather significant number come from the other quartiles.

The pattern is pretty much the same for the socioeconomic levels. Twenty one per cent (21%) of the students who went to the community colleges came from the top quartile, twenty seven per cent (27%) from the second, thirty three per cent (33%) from the third, and nineteen per cent (19%) from the fourth. The fact that more than fifty per cent (50%) of the students came from the two bottom quartiles seems to indicate that the community colleges are contributing to the equalization of education opportunity in the United States.

So, while students at the colleges and universities that have select admission requirements are demonstrating and rioting, demanding that the admissions barriers be town down (University of Michigan, March 1970 experience), the community colleges are admitting a student body whose back-ground is very similar to the total population. Here, again, the emphasis is on a different syllable.

Another term that perhaps we should define at this point is "comprehensive." This means that the college attempts to offer a wide variety of types and levels of programs that will meet the needs of such diverse student body as described above and the needs of the area business, professions and industry. Most community colleges offer four types of programs: (1) transfer, (2) occupational, (3) developmental and (4) community service.

COLLEGE/UNIVERSITY TRANSFER PROGRAMS

These are programs providing the first two years of study leading toward a Baccalaureate Degree. Upon successful completion, the student normally transfers to a four year college or university to

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complete his undergraduate program.

TECHNICAL/CAREER PROGRAMS

The objective of these programs is to develop an occupational competence after successful completion of the two years of study. Training for entry into the employment field is the primary function of career education. The College offers thirteen (13) Technical/ Career Programs, of which ten (10) lead directly to the Associate Degree while three provide a Certificate with option to continue work for a degree.

GENERAL STUDIES PROGRAM

The purpose of the General Studies Program is to provide an opportunity for students who have had limited success in high school, as well as for those who have been away from school for some time and may require developmental work in order to successfully complete career or transfer level offerings. The students will be provided individualized instruction in reading, writing, and mathematics, according to their needs. They will also participate in group guidance sessions designed to assist them in clarifying objectives and defining realistic goals relative to their abilities. General education courses designed to improve the student's knowledge in selected areas are also made available in this program.

Teaching: Philosophy and Methods

At the community colleges in the general area of teaching, the emphasis is in a different syllable. The community college, as opposed to the four year colleges and universities where research is one of the primary functions, is very frankly a teaching institution. The difference between philosophies,

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in very over-simplified terms, can be stated thusly: in the four year college and university, the student is brought to the discipline is brought to the student. (3:6)

We are concerned not with fitting the student to our own educational patterns, but with attempting to fit education to meet the needs of the individual student. It is our hope to take the student from wherever he may be to wherever he is capable and willing of going. Here, again, the emphasis is on a different syllable.

The emphasis in on a different syllable too when it comes to the methods and techniques of teaching that are used at the community colleges. For many reasons—the non-traditional student body, the "different" philosophy of teaching, the work that has been done on behavioral objectives and the systems approached to teaching, the impact of educational technology on the academic marketplace, the relative newness of the community college, to name some—the methods of communicating information to the students should be different, and indeed they are.

Now, faculty members in community colleges are making very heavy use of films, filmstrips, cassettes, tapes, slides, filmloops, computer-assisted and computer-manager instruction, television, and other media to communicate information to their students, to teach them.

At the same time the function of the faculty member is changing. Dr. Floyd S. Elkins, in the latest issue of Educational Media, said it much better than I; so I'll quote him: (2:16)

The role of the instructor has changed. No longer is a teacher hired to be a primary source of content. It is true that the teacher does serve as a learning experience in that he is capable of relating a vast amount of subject information to the students, but he is only

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one of many available learning experiences in which the student may be involved. Since the instructor is no longer the primary source of content, then what is his role? In an instructional system designed for optimum learning, the effective teacher must be a manager of learning experiences, many of which can be provided through educational media designed to assist the students in achieving behavioral learning objectives designed for a particular course by a particular instructor.

In a recent statement of the competencies which all teachers should have, Dr. Meierhenry wrote (4:1031) that in addition to knowing theory and knowing "message design or the development of an instructional sequence or an instructional system," the teachers should "develop certain skills in the production of materials as well as in the operation of equipment." These last functions are some of the responsibilities of the media professional or the media specialist on campus (6:1028).

In 1963, in a position paper, the Department of Audiovisual Instruction (DAVI) of the National Education Association (If the latest consitutional amendment is approved by the membership, it will be known as the Association for Educational Communications and Technology) gave two major functions of technological media in education. (5:11-12) The first function, they feel, is "to supplement the teacher through enhancing his effectiveness in the classroom. Educational media are both tools for teaching and avenues for learning, and their function is to serve these two processes by enhancing clarity in communication, diversity in method, and forcefulness in appeal."

The second function is "to enhance overall productivity through educational media and systems which do not depend upon the teacher for routine

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execution of many instructional processes and for clerical/mechanical chores." This statement has serious implications. This statement shifts some of the focus in the teaching/learning process from the instructor in the classroom as the only source of information, to the individual student, actively participating and personally involved in individual work, interacting with the "newer" media, "newer" formats, "newer" sources of information. The emphasis is on a different syllable here too.

So....what does this do to the poor, traditional library?

The Learning Resource Center

Dr. C. Walter Stone, in the introduction to the issue of Library Trends which dealt with library uses of the newer media of communication, said, in describing the message of the eleven articles that made up the issue,"... it is positive and calls for both a basic reorganization or merger of the various professional fields involved, and a redefinition of library functions." (8:180)

As we have already seen, the function of the instructor is changing. If indeed the focus in the teaching-learning process is changing from the classroom to the student doing independent work, the instructor must become a resource person, a person very knowledgeable in the instructional materials available, a person who can refer the student to materials, to sources other than textbooks and in diverse formats from which additional information can be obtained. In other words, the instructor will assume some of the traditional reference functions of the librarian.

The librarian's function, too, is changing and expanding. There is no other person on the campus who has the necessary training and background to organize and catalog all the instructional materials that are now part

of the community college world so that they are easily retrievable. Only the librarian can do this. Thus, the librarian has to expand his horizons. The librarian has to integrate the whole range of instructional materials and formats with the traditional collection. I want to emphasize the fact that I am not calling for the discarding of the book; I am saying that we must consider other media part of our collections. (What about the media specialist) So...here, the emphasis is on a different syllable too.

But the change in the function of the librarian does not stop here. Traditionally, the function of a college library has been to support the various curricular programs offered by its parent institution. But this is true in colleges using the traditional approaches to teaching. The function of the library in community colleges using the newer modes must be much more than just selecting, acquiring, classifying, cataloging, circulating and so forth, all the intructional materials. The librarian, to quote Dr. Louis Shores, must be willing "to library teach" rather than just "library manager."

The librarian must become a much active, teaching partner—not a supportive partner—in the teaching learning process. It the student is to get the maximum use of the resources in the learning center, he must be able to retrieve them. Thus, the first job the librarian has is to see to it that students have a "sophistication in the library use that goes beyond anything that has yet resulted from orientation periods or separate freshmen courses. (15:13). In addition, the librarian must be deeply involved in curriculum planning and development to insure that the whole realm of resources can be made a part of any program. Third, and perhaps this should be the first one, the librarian must teach the instructors themselves which materials are available and how he can retreive

them and use them. Finally, the librarian must teach the administration—perhaps this is the most important aspects of the "new" jobs for the librarian.

I am sure that you are asking: "Who will do the work that I am now doing? Does he expect me to do all this other work in addition to what I am doing now?" My answer is that you ought to take a closer look at what you are now doing. I think you will find that many of the tasks you are now doing should be done either through automation, by using machines, or by para-professionals. (tell about our computer program and our staffing for 1970-71).

Thus, you can see the "merger of the various professional fie.'s involved" that Dr. Stone, whom I quoted earlier, wrote about. The instructor, because of his changing role, is assuming some of the duties and responsibilities normally delegated to the librarian and the audiovisual specialist. The librarian is becoming more of an active partner in the teaching-learning process by doing much more teaching and must communicate more with the audio-visual specialist. And all three—the instructor, the librarian and the audio-visual specialist will work closer together and all three will have to spend more time in the learning resources center. All three professions are merging somewhat. Here, the emphasis is on a different syllable.

You can also see the "redefinition of the library function." The learning resources center now truly becomes the real center of learning on campus. The learning resources center, instead of having a passive, supportive role, assumes an active, moving, dynamic teaching function.

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Summary

The emphasis is on a different syllable all around. To summarize: the community college because of its philosophical bases, admits a student body that, contrary to other institutions of higher learning, is very similar to the total population. In order to meet the needs of these students, the community colleges offer a wide variety of programs. The philosophy of teaching and the techniques of teaching are different. The functions of the instructor and the librarian are changing and the professions are merging. All this changes the function of the library and the librarian. The whole range of instructional materials must be incorporated into the traditional library collection to convert the library into a learning resources center. The librarian must assume a more active position in the teaching-learning process.

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COMMENTS ON VITALIZING A FACULTY

Made at Appalachian State University
Tuesday, 9 June 1970

by Alfredo G. de los Santos Jr.

The comments that I want to make this morning on vitalizing a faculty at a xommunity college stem from my experience in community colleges for a period of about eight years, especially my experience at Northampton County Area Community College. I am going to divide my presentation into three broad areas: (1) enough background about Northampton County Area Community College so that you will understand our situation more or less, (2) those factors that I think encourage faculty to try new approaches to teaching, and (3) those factors that hinder the encouragement of faculty in trying new teaching methods. It is not my intent to tell you what implications these comments may have for you as a librarian or as a director of a learning resources center, but rather, I would hope that you would determine what the implications for you are when you meet in small discussion groups this afternoon.

The college was started in 1967 in an interim campus that took four months to build. The enrollment history for the college is as follows:

Year	Full-Time Enrollment	Part-Time Enrollment
1967	400	450
1968	865	550
1969	1,100	750
1970 (expected)	1,400	850

As I mentioned earlier, the college started in interim facilities and we spent the first year of the college's existence planning our permanent campus. We started construction on this nine million dollar facility in January, 1970, and it should be ready for occupancy in the Spring, 1972.

Starting in the Fall, 1970, we will have three professional librarians, three paraprofessionals, one clerk, and student assistant help. In addition, we have an associate dean who is an audio-visual specialist, and audio-visual technician, and student assistants to help them, too.

We have a Chester Electronics Dial Access Laboratory, an IBM 360-40 Computer, and enough of what I call garden type variety audio-visual equipment, from reader accelerator through 16mm projectors, through closed circuit television.

At this point I would like to tell you something about the administrative structure of the college. The college has a more or less traditional administrative structure in that the President is the executive officer of the Board, there are four deans who report directly to the President, and there are division chairmen who have responsibilities for coordinating the work of the faculty members within their division. We have a Faculty Senate and a Student Senate.

However, it is here that the college begins to deviate from the traditional. For example, we have a faculty delegate to the Board of Trustees and we have a student delegate to the Board of Trustees. There are student representatives in the Faculty Senate and there are faculty representatives in the Student Senate. Their committee structure of the college includes both faculty and students. See the attached copy of the college's administrative schedule.

I have just given you one of the factors that I think is very important in the vitalizing of instruction in the community college: faculty involvement. We want our faculty members to be involved not only in the selection of materials for inclusion in our learning resources center, but we want them to become involved in the governments of the institution. With the administrative structure that I have just described, they have this opportunity to do so.

Thus, we create what we prefer to call an "open enviroment." Our faculty members are encouraged to try new approaches to teaching and we provide the facilities for them to do so. We have created an enviroment that is free and easy and that encourages, we hope, faculty to attempt new approaches.

Another factor that I think is very important in encouraging faculty to try new approaches to teaching is the right to fail. Within limits, we do not punish faculty members if an approach that they are attempting does not prove very successful. In all this, we are implying a fairly good system of evaluation. In our institution we have an Office of Institutional Research that becomes involved early in the planning stages of any new approaches to teaching so that a small research design can be developed so that we can test the effectiveness of the new approach. Thus, the right to fail, together with an evaluation system, are very important in encouraging faculty to attempt new approaches to teaching.

We have also found that a number of our faculty members who attend conferences and professional meeting learn of new techniques that other faculty members have used in other institutions. Therefore, we encourage our faculty to attend professional meetings and coferences. Sometimes faculty members also learn about new approaches to teaching by reading about them in professional and other scholarly journals.

But without money you cannot do too much. To provide the financial resources, we budget a certain amount of money every year to pay our faculty to develop the materials and techniques that are new on our campus. For example, this summer a number of our faculty members have been awarded what we call extended time projects to develop newer approaches to teaching courses. Some of these are the following:

Project	Credit Hours	Salary
To develop programs for computer assisted instruction in geography with emphasis on behavioral objectives	6	$1,050
To present BDP 503, Basic Assembler Language, on cassette tapes and to develop a workbook to accompany the tapes	4	888
To develop an auto-tutorial slide rule course.	3	666
To develop a technical writing manual.	3	666
To plan and organize an orientation day based on the micro-lab technique.	1	222
To develop necessary materials to prepare students with deficient backgrounds to take Finite Mathematics and to develop the corresponding testing program to be used for both evaluating student progress and for diagnosing problem areas.	3	525
To develop an audio-tutorial approach to business machines by producing two film loops	2	444
To replace an Algebra 1 video tape that has been lost.	1	175
	Total	$4,636

Another factor that has had some influence on our faculty in the using of newer approaches to teaching the funds that we have received from government grants. For example, recently we received a $12,000 grant through the Vocational Education Act to set up an audio-tutorial laboratory for our nursing program.

Special facilities for teaching also encourage our faculty to use newer approaches to teaching. For example, the fact that we have a fairly sophisticated computer has prompted facutly members in the math, geography and data processing department to attempt to use computer assistant instruction and computer manage instruction as an approach to teaching. The fact that we have a dial access laboratory has encouraged the members of the nursing department, the music department, the secretarial sciences department, the psychology department, the history department, in addition to the foreign language department, to use it and this has been very helpful to the students.

Another factor that has helped our faculty in learning about newer approaches to teaching is our allowing them to visit institutions that are doing new and different things. For example, we paid the expenses of a faculty member who is going to do some work this summer in computerizing his approach to teaching of

geography to visit a university in California that has been attempting this for a year or two.

The recruitment of faculty who are flexible and who will accept newer approaches to teaching, of course, is another factor that has helped us to learn new ways of teaching students. We look for faculty members who are using or want to use newer techniques to teaching when we recruit our faculty.

Of course another very important factor is the influence of the students on the faculty. If a student has taken a course in history in which he had the opportunity to listen to the instructor's lectures as many times as he wanted to on the dial access or on cassettes, and enrolls in a course where he does not have this opportunity, he is going to attempt to influence his instructor to use the dial access so the cassettes that we have available record his lecture so the students can listen to him as often as they want to.

Another factor that has helped our faculty in attempting new facilities has been in preparation of faculty. We have sent a number of our faculty to multi-media institutes throughout the country to get them to learn new techniques. Of course we have a fairly good in-service training program that we hope teaches them about newer approaches.

One last thing that I think has helped us is the formation of consortia. Community colleges throughout the country have organized into groups and they can afford to do more and better things that working alone they could not do before.

At this point I would like to tell you some the reasons that some institutions have not attempted or have not been successful in trying newer approaches to teaching. Perhaps in our case the main reason we are doing as little as we are is that we are a very new institution. When an institution starts, there is so much work that needs to be done that no time is left over for even thinking of trying new approaches.

Another factor that discourages faculty members from teachin is the consequence of the increasing enrollment. For example, in our institution the enrollment that we will have next fall is so great that at the present time I am feverishly searching for facilities, faculty and equipment so that we will be able to house the number of students that we will probably enroll. So instead of attempting to work with our faculty to try new approaches, our problems in more mundane immediate areas are such that we don't have the time to devote to this. The next thing that hinder the attempts of faculty to attempt new approaches to teaching is the administration. Sometimes the administrative staff is very chicken. They will not attempt to use new approaches because of the fear or the unknown, the fear of what faculty members will say, the fears of community reaction, etc. Another fault of the administration is what I call administrative rinky-dink junk. Sometimes in order for us to approve a project by a faculty member we force him to fill all kinds of forms and go through all kinds of unnecessary steps that faculty members really give up even before they attempt anything.

Another item that also hinders the development of newer approaches to teaching is the approach taken by administrative staff that decide that an innovation has to be used without involving the faculty in the decision making process.

It is very difficult for any faculty member to accept an innovation if he is not involved in the decision making process.

The last thing is equipment breakdown. If you work with a faculty member and he finally decides to try an approach using a piece of equipment and he plans a whole lesson around the piece of equipment and that the piece of equipment breaks down when he is in the middle of the class or even before he starts a class, the chances are that it will be a long time before he tries it again.

I do hope that you will take what I have said into consideration and get from my comments the implications of the newer approaches to teaching and the implication of what these new approaches will mean to you in the library or the learning resources center.

md 7/7/70

M Y T H S , M E A S U R E M E N T , A N D M E D I A

Dr. Al Corum

I feel deeply privileged to make a few remarks to this group for several reasons: First, I believe that such institutes as this are going to have a profound effect upon the future of the Learning Resources movement. Second, I have a strong faith in the leadership of the institute and their ability to recruit fine people into participation in this University. Finally, I expect to work closely with many of you during the coming year. In short, I feel good about your being here.

Another reason for my optimism is Dr. Jackson's presence on the campus. It takes a good measure of courage for a university president to appoint a Dean of Innovation; it takes even more courage to accept such a position. But Jim has that distinction, and I know that he will make the most of it.

At the outset of my comments, I should like to tackle some of the myths which have held sway in education for a while now.

One of the favorite myths in the library world says that women are just not mechanically inclined and should not be trusted with expensive things like computers, retrieval systems, television equipment, and the like. Nonsense! As I look around, I see many, if not most of the technological advances in library work being made through the leadership of women. If more evidence is needed, just take a look at some of the so-called "labor saving" devices which are used by "unmechanical" housewives every day without serious problems. Some of these devices are highly complicated and make many a highly "mechanical male" more than a little apprehensive. Also, I am encouraged by the growing number of somen I see mowing lawns and doing other worthwhile things around the house.

Another myth that needs some examination is the widely held belief that automation is a synonym for "dehumanization." Does this myth stand up in the face of the statement by Norbert Weiner, the father of "Cybernetics," that "The most degrading thing that a man can be asked to do is to perform a task that can be better performed by a machine." I submit that automation is a neutral phenomenon, but that the uses to which it is put can, and often are, dehumanizing. But automation and dehumanization are not synonymous. Let's consider, for a moment, that the acquisition of knowledge, and hopefully the further distillation of that knowledge into wisdom, has been one of the marks of the true "human." Then consider that there is now about 100 times as much to know as was available in 1900. And, by the year 2000 there will be over a thousand times as much knowledge of all kinds to record, to sift, to store, to search out, to teach about, and, hopefully, to use with some descrimination and effectiveness. When we fully digest these facts, it seems evident that automation, in the best sense, can render the "knowledge explcsion" less formidable by making knowledge more accessible to more people and thus increase their chances of becoming more "humanized." I feel sure that the blind boy or girl who learns to "read" much faster through the use of electronic stimuli instead of through the more laborious Braille system in a book does not consider automation "dehumanizing." Nor do I believe the cardiac patient, whose life is prolonger by a "pacemaker" or other such device, feels unkindly toward automation.

A third myth of education has held that the lecture method of instruction is superior, if not indeed sacred. This is one of those "deniable" myths. That is, many teachers stoutly deny (in public) that their classroom activities are lecture-dominated. However, a lecture by any other name is still a lecture, even if it has been taped. Some people have used rather clever techniques to hold on to the "lecture syndrome."

Myths, Measurements, and Media

The basic inferiority of the lecture method has been shown by reams of reports doming from legitimate research. However, the philosophical and psychological jolt of the "weaning" process has kept the lecture myths at the top of the heap.

The last myth I will mention tonight is the one which insists that teaching is an "art" and therefore resists scientific analysis. A good deal of light has been aimed at this myth by people such as Bloom, Mager, Ofiesh, Skinner, and many others. Certainly, teaching is an art; but is more than that. It is also a science, and thus should be concerned with the systematic approach. Mager and Beach point out that "Systematic course development is no different than systematic development of an airplane, or systematic design and construction of a building . . . The tools are different, but the procedure is the same."

MEASUREMENT AND SYSTEMS APPROACH

A systems approach requires the definition of specific objectives or outputs, and the provision of means for achieving these outcomes, as well as evaluation and systematic feedback for use as a basis for improvement. These appear to be the basic elements of a systems approach.

As the systems approach to education has gained a foothold, a rather clever saying has been adopted by some of the writers of behavioral objectives. It goes like this: "If you run across something you can't measure, describe the devil out of it."

This statement indicts all of us. We find it much easier, and less threatening, to describe rather than to measure — even when we have a choice. This preference for description over mrasurement has perpetuated the myth of education as only an art.

Myths, Measurements and Media

A good deal of "tinkering" as done with the systems approach to education before some nervy fellows like Skinner, Ofiesh, Deterline, Cohen, and a few others got serious about it and began "programming" instruction. Naturally, this led to considerable debate, which is still going on.

Much of the early work in programmed instruction took place in the Military, where there was a high premium on efficiency, effectiveness, and cost (believe it or not). Excellent results were obtained with good programmed instruction, and educational institutions began to show interest.

Today, programmed instruction employs a tremendous array of hardware (computers, audio-viaual equipment, and so forth) and a fast-growing vaiety of printed forms. Sophisticated information retrieval systems have been put to work in the effort to further enhance programmed instruction.

One of the pioneers of the systems approach to instruction was Sam Postlelhwaite, of Purdue University. He has harnessed programmed materials, audio-visual equipment, and instructional media to a true systems approach to education.

MEDIA

Marshall McLuhan has said "the medium is the message," and, to the extent that we can understand McLuhan, (which is sometimes questionable) that statement takes on great importance. If we are to make the library into a Learning Resources Center, where information is moved rather than stored, then we have to give sharp attention to the media which are used to deliver that information. Moreover, if teachers are expected to make their courses more interesting, more learnable, and more measurable in terms of specific objectives, they must be provided the wherewithall to do these things. Otherwise, we will continue to exalt perhaps the greatest myth of all which is this: "Education is the

exclusive domain of educators."

Competition in the media field is becoming intense. Many agencies — both public and private — are competing for the individual's mind (and money). The information industry has been estimated at 192 billion dollars. Television, magazines, records, films, radio, and a host of other media are making a strong bid to dominate education.

More and more industrues and other groups are "guaranteeing that they can teach people a definite amount within a definite time. This is a bit frightening, because they are getting contracts to do this — and what is more, they are succeeding.

Where does this leave us in the Learning Resources field, then? Well, we're right in the middle of this knowledge explosion whether we like it or not. The "good old days" of s-h-h-h and paste are probably gone forever. Even the locations of new public libraries are including shopping center — that's where people go in their normal routine, so the idea is to make information convenient for them.

I am optimistic (much more so than I was five years ago) about our chances, however. Some of the things I see and hear about are encouraging. For example, some entire colleges have made the systems approach to education their operational philosophy; very few institutions ignore programmed instruction, and many use it extensively. Audio-tutorial laboratories and media centers are thriving around the country. Libraries are exerting an even greater influence upon the quality of teaching and learning through the intelligent use of automation and retrieval systems. Many of you have seen blossoming this year what Louis Shores, Edgar Dale, Jerrold Kemp and many others started years ago. I feel sure that you will continue this effort. These observations can be euphoric, though. But no less

a scholar and philosopher than Yogi Berra has said "It's amazing what you can observe just by looking."

Your charge, then is to destroy some of the myths that plague us; to measure your performance and help others measure theirs; and manage media rather than to let it manage you.

At the base of all this must be commitment which is "belief focused to the point of action. In other words, "put your life where your mouth is." And remember, the Library is where it is.

Another American philosopher, Satchel Paige, once said "Don't look back, something may be gaining on you." Time is gaining on me, so I'll stop here.

PortAble Carrell Kit

(PACK)

by

Ramon M. Fusaro, M.D., Ph.D.*
and
Jan B. Fusaro, Ph.D.**

College administrators and especially junior college and technical school administrators are concerned with educating students in the most efficient and least expensive manner. With the impact of modern educational technology, educational costs have soared astronomically. More and more faculty are requesting the building and staffing of facilities for educational resources (Learning Center) to support the courses in the curriculum. Students are demanding that the core information of their courses be given to them in some format in which all students have accurate information available for study. The costs of meeting these demands dwarf previous expenditures in learning resources which included only classrooms, teaching laboratories and the traditional print library.

We are placing more emphasis on self instruction in higher education, as it is the main mode of learning in continuing education following graduation. Ideally the teacher, the librarian and audiovisualist becomes the manager or facilitator of learning in a self-instructional experience in which the student proceeds at his own rate of comprehension rather than in a lock-step fashion. In support of the self-instructional approach to the curriculum, institutions are now providing in their present and future facilities, Learning Centers. The more sophisticated the hardware (technological devices) in these centers, the greater the costs not only in initial purchase but in maintenance and in producing the software (course materials) which must be developed for the most part by providing faculty with adequate release time and reduced teaching loads. Carrels in the Learning Center can be minimally equipped and relatively inexpensive. On the other hand, if they are 100 percent WET (wired for electronic technology) with the lastest

*Associate Professor, Chairman of Teaching Resources and Audiovisual Committee for the Medical School, University of Minnesota, Minneapolis Minnesota 55455
**Project Coordinator, Librarian, Minnesota Higher Education Coordinating Commission, Capitol Sq., Bldg., St. Paul, Minnesota 55101.

electronic devices, the financial support needed is many times greater. There is no question that all of these new technological devices under proper circumstances are useful. However, improper use is a financial detriment to any institution. In addition, depending upon the budget of the college, the ratio of students to carrels can be varied. But with a low ratio and a high WET percentage, the funding needed can be a major item in the college budget.

An important consideration in educating any student is the need for accurate core information is his courses. Because of the information explosion, the need becomes a "must." Many teachers still hold the lecture method sacred, give information by professing in the classroom. The student is forced into transcribing the information into his notebook for later review, study, and comprehension. Students do not have the time or ability to copy all the information given to them in class. Of that which is copied, misinformation is present in varying amounts. The errors in their notes are sometimes never uncovered by even the most diligent students. Those students who bought last year's notes from a former student or know shorthand and can take photographs of projected slides, have a decided advantage over the average student.

If one reviews information given to students in the majority of courses, it is apparent that most information (if not all in some courses) can be provided in three formats: (1) printed page, (2) aural (tape cassette), and (3) Photographic slides (35 mm) or filmstrips (color and black and white). The advantages of supplying the course knowledge in audio and/or visual formats include accuracy of information and versatility in choice of study format. In addition, the student is freed from the necessity of transcribing information and can devote himself to listening and comprehending.

Institutions will have carrels in the Learning Center; however, the question is what type of electronic sophistication and the number of carrels. At a minimal construction cost of $50/square foot, the cost of the Learning Center can

easily exceed a million or more dollars. The majority of the carrels in the Learning Center should be reserved for those learning functions which are not applicable to the above format (e.g., motion skills as demonstrated by motion pictures or video tape, etc.).

What is needed is a PortAble Carrel Kit (PACK) which consists of a carrying case containing a cassette tape player (battery/AC cord) and a slide and/or filmstrip projector. The cassette player has its own individual case so that it alone may be taken to school alone. The cost of such a Kit is between $50 to $500, depending upon the quality and quantity ordered. Its costs can be as low as 1/4 to 1/10 the costs of providing the same equipment and space in a Learning Center. Besides, the cost estimate does not take into consideration the high maintenance costs of the Learning Center. The student can take his PACK home or any other place to study. In addition, the student is responsible for the PACK as he rents it and pays for its repairs; thus,the institution is reimbursed for part of its initial costs and has a low unit cost for the PACK. The use of PACK would be most appropriate at colleges where a large percentage of the students live off the campus. These students have less time to use the carrels in the Learning Center. Certain production facilities and staffing are necessary: (1) print shop and duplication service, (2) arts and photography division, (3) audio-taping service, and (4) electronic repair and loaning service. No matter what format is used, these services are necessary; however, the PACK format requires quantitatively far less services.

If a simple cassette tape player is used (not recorder), one has to supply each student with the taped lecture. This requires sufficient staffing and equipment to prevent lag-time in the students getting tapes, especially if the lecture is not prerecorded. This can be a major problem with the usual reluctance of faculty to prerecord. In some instances prerecording is impossible. An

alternate proposal cuts the production staffing needs but raises the cost of the PACK. Instead of a cassette tape player, the student rents a cassette tape recorder with an automatic recording gain. Each seat in certain classrooms and seminar rooms least of all should have a standard 6-volt electrical outlet. The student can tape the lecture at the time he attends classes. Of course, if he misses the lecture, the audio-visual service has all lectures recorded. With the latter tape cassette model, the only items that need to be handed out in class are (1) outline of lecture, (2) visuals (e.g., charts flow sheets, etc.) and (3) 35 mm slides and filmstrips. The inexpensive PACK requires more production facilities, but the quality of the tapes are better. The more expensive PACK gives more versatility to the student and requires less production input. In order to cut costs to the students, the blank tapes can be rented.

PACK can be used by the student any time. We are now beginning to appreciate the body's intrinsic Circadian rhythm (24-hour clock) and its effects on physiologic functions. With a PACK the student can study anytime he wishes (morning, mid-day and night) depending upon his intellectual efficiency during his personal 24-hour cycle (rhythm). Thus, we do not have to keep the Learning Center open 24 hours a day, seven days a week, at high costs.

A decided advantage of the format of PACK is the ease of deleting obsolete materials and adding up-to-date data to any course. This ease of up-dating material has important application in continuing education. Because of the information explosion, we must study for the rest of our lives or soon become increasingly ineffective after graduation. The format of PACK is most applicable (up-dating costs low) to self instruction after graduation. A student registered for a continuing education course will receive each year that part of the format which has changed and with notations.

PortAble Carrell Kit

PACK gives us an opportunity to foster those learning skills that will be most useful to the student for the remainder of his active intellectual life.

The PACK as now constituted is available today; however, in the future there will have to be an addition to the PACK. Information in all its forms is being reduced to micro size in such forms as microfiche, microfilm, and now microbook. At present we have microfilm readers, but their size and cost does not adapt to the small PACK concept. Within the decade, technologic development will most likely reduce the size and cost of micro-readers so that they will be another addition to PACK.

The application and use of PACK offers many educational advantages at very low costs. During any class or seminar, it frees the student to give his undivided attention to understanding the concepts in the knowledge being presented to him. It provides the student with accurate information in his courses and daily opportunity to study ad lib at his most optimum learning period.

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